

## REMARKS

Claims 1-29 are pending in this application. Attached hereto is a complete listing of all claims in the application, with their current status listed parenthetically. By this Response, claims 1 and 28 have been amended, and are presented with markings to indicate their current amendments.

### **1<sup>st</sup> Rejection Under 35 U.S.C. § 102(b)**

Pending claims 1, 4, 6, 7, 9, 16-18 and 28 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,822,508 ("Yoon"). As discussed below, Applicant respectfully traverses this rejection.

#### **A. The Law of Anticipation and Enabling Prior Art References**

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. § 2131. The identical invention must be shown in as complete detail as is contained in the claim. *Id.*

However, Applicant submits that amended independent claims 1 and 28 have elements that cannot be found, either expressly or inherently, in Yoon. For example, both amended claims 1 and 28 now recite, in part:

". . . a template generator that generates a local signal similar to a plurality of incoming ultra-wideband signals, and a single correlator structured to update the local signal based on the plurality of incoming ultra-wideband signals. . ."

In contrast, Yoon teaches using multiple correlators to receive multiple signals. "[A]s shown in FIG. 5, the correlator 21 includes as many K correlator banks 31<sub>1</sub> to 31<sub>k</sub> as there are multi-access users. . ." (col. 11, lines 56-58). "FIG. 6 shows an example of a construction of the correlator bank 31<sub>k</sub> shown in FIG. 5." (col. 12, lines 6-7).

One feature of the present invention, and as recited in amended claims 1 and 28, is that only one correlator is employed to receive multiple signals. This feature is discussed in the Summary of the Invention section, and discussed throughout the specification, including page 11, lines 5-15, and page 18, lines 11-22.

Accordingly, Applicant respectfully submits that Yoon cannot anticipate amended claims 1 and 28. Claims 4, 6, 7, 9 and 16-18 depend from claim 1, and accordingly it is respectfully submitted that the rejection of claims 4, 6, 7, 9 and 16-18 has been traversed by virtue of their dependency from claim 1. M.P.E.P. § 2143.03.

## **2<sup>nd</sup> Rejection Under 35 U.S.C. § 102(b)**

Pending claims 24-27 and 29 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 6,529,568 ("Richards"). As discussed below, Applicant respectfully traverses this rejection.

As discussed, above, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. M.P.E.P. § 2131. The identical invention must be shown in as complete detail as is contained in the claim. *Id.*

However, Applicant submits that independent claims 24 and 29 have elements that cannot be found, either expressly or inherently, in Richards. For example, both originally-filed claims 24 and 29 recite, in part:

". . . generating a template signal, correlating the ultra-wideband signal with the template signal, estimating a coarse timing reference from a correlation of the ultra-wideband signal and the template signal and updating the template signal based on the coarse timing reference. . ."

Richards contains no teaching or suggestion of using a template signal, nor does Richards teach or suggest updating the template signal based on the coarse timing reference. Instead Richards teaches using "a Lock Loop to derive impulse signal timing. The Lock Loop locks onto and tracks the timing of the received impulse train (of impulse signal 906 in received signal 1040), to thereby derive receiver timing signals (col. 44, lines 30-34)." In the single correlator embodiment illustrated in Richard's FIG. 25, the "tracker 1688 in receiver 2500 derives an impulse timing signal 2520 (indicative of impulse timing) based on demodulated output 2320, and provides timing signal 2520 to interference canceler controller 1692 (col. 49, lines 46-50)."

Thus, Richards teaches providing a timing signal, but contains no teaching of providing a template signal, as recited in Applicant's originally-filed independent claims 24 and 29. For the purposes of establishing a non-ambiguous prosecution history, a "template signal" as recited by Applicant is "a locally generated template signal" as disclosed in Applicant's originally-filed specification on page 13, line 2 and page 13 lines 5-10, and in other locations.

Accordingly, Applicant respectfully submits that Richards cannot anticipate originally-filed independent claims 24 and 29. Claims 25-27 depend from claim 24, and accordingly it is respectfully submitted that the rejection of claims 25-27 has been traversed by virtue of their dependency from claim 24. M.P.E.P. § 2143.03.

#### **Rejection Under 35 U.S.C. § 103(a)**

In paragraphs 3-6 of the Office Action, several dependent claims stand rejected as unpatentable under 35 U.S.C. § 103(a). Specifically: claims 2-3 are rejected over Yoon, in view of U.S. patent 3,906,453; claim 5 is rejected over Yoon, in view of U.S. patent 6,378,080; claim 8 is rejected over Yoon, in view of Richards; and claims 10-15 are rejected over Yoon, in view of U.S. patent 4,270,209. Applicant respectfully traverses this rejection.

Because claims 2-3, 5, 8 and 10-15 depend from independent claim 1 it is respectfully submitted that the rejection of claims 2-3, 5, 8 and 10-15 has been traversed by virtue of their dependency from claim 1. M.P.E.P. § 2143.03.

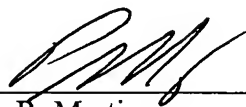
**Conclusion**

Applicant believes that this Response has addressed all items in the Office Action and now places the application in condition for allowance. Accordingly, favorable reconsideration and allowance of claims 1-29 at an early date is solicited. No fee is believed due with this response. However, the Commissioner is authorized to charge any fee required to our Deposit Account No. 50-3143, in the name of Pulse-Link, Inc. Should any issues remain unresolved, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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Date

  
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